I. AMENDMENT

In the Claims:

The following listing of claims will replace all prior versions and listings of the claims in the application:

Listing of the Claims:

1. (Currently amended) A process for increasing the circulating levels of a ~~self protein~~hormone in the blood stream of an immunocompetent animal which comprises delivering a viral vector *in vivo* to muscle cells of said animal by intramuscular injection in an amount sufficient to obtain expression of and increase the circulating level of said ~~self protein~~hormone in the bloodstream of said animal for a period greater than about 30 days, wherein said ~~self protein is a polypeptide~~hormone ~~that~~ undergoes secretion, diffusion or transport to the circulation upon expression *in vivo*.

2. (Original) The process of claim 1 wherein the animal is a primate.

3. (Original) The process of claim 2 wherein the primate is a human.

4. (Original) The process of claim 1 wherein the viral vector is a replication-defective adenoviral vector or a retroviral vector.

5. (Currently Amended) The process of claim 1 wherein the ~~self protein~~hormone is a cytokine, colony stimulating factor, nerve growth factor, insulin, glucagon, rennin, parathyroid hormone, growth hormone, ~~growth factor~~ or erythropoietin.

6. (Currently Amended) The process of claim 1 wherein the circulating level of the ~~self protein~~hormone is increased for a period of time greater than about 60 days.

7. (Currently Amended) The process of claim 1 wherein the circulating level of the ~~self proteinhormone~~ is increased for a period of time greater than about 90 days.

8. (Currently Amended) The process of claim 1 wherein the circulating level of the ~~self proteinhormone~~ is increased for a period of time greater than about 120 days.

9. (Currently Amended) The process of claim 1 wherein the circulating level of the ~~self proteinhormone~~ is increased for a period of time ranging from about 90 days to about 365 days.

10. (Original) The process of claim 1 wherein the muscle cells are cardiac muscle cells or skeletal muscle cells.

11. (Original) The process of claim 1, wherein said immunocompetent animal is being treated with an immunosuppressant.

12-23. (Canceled)

24. (Currently Amended) A process for increasing the circulating levels of a ~~self proteinhormone~~ in the blood stream of an immunocompetent animal which comprises

transforming muscle cells of said animal *ex vivo* with an expression vector encoding a ~~self proteinhormone~~; and

delivering said transformed muscle cells to said animal by intramuscular injection in an amount sufficient to obtain expression of and increase the circulating level of said ~~self proteinhormone~~ in the bloodstream of said animal for a period greater than about 30 days, wherein said ~~polypeptide~~ hormone undergoes secretion, diffusion or transport to the circulation upon expression *in vivo*.

25. (Original) The process of claim 24 wherein the animal is a primate.

26. (Original) The process of claim 25 wherein the primate is a human.

27. (Original) The process of claim 24 wherein the expression vector is a plasmid.

28. (Original) The process of claim 24 wherein the expression vector is a viral vector.

29. (Original) The process of claim 28 wherein the viral vector is a replication-defective adenoviral vector or a retroviral vector.

30. (Currently Amended) The process of claim 24 wherein the ~~self-protein~~hormone is a cytokine, colony stimulating factor, nerve growth factor, insulin, glucagon, rennin, parathyroid hormone, growth hormone, ~~growth factor~~ or erythropoietin.

31. (Currently Amended) The process of claim 24 wherein the circulating level of the ~~self protein~~hormone is increased for a period of time greater than about 60 days.

32. (Currently Amended) The process of claim 24 wherein the circulating level of the ~~self protein~~hormone is increased for a period of time greater than about 90 days.

33. (Currently Amended) The process of claim 24 wherein the circulating level of the ~~self protein~~hormone is increased for a period of time greater than about 120 days.

34. (Currently Amended) The process of claim 24 wherein the circulating level of the ~~self protein~~hormone is increased for a period of time ranging from about 90 days to about 365 days.

35. (Original) The process of claim 24 wherein the muscle cells are cardiac muscle cells or skeletal muscle cells.

36. (Original) The process of claim 24, wherein said immunocompetent animal is being treated with an immunosuppressant.

37. (Previously Presented) The process of claim 1, wherein the immunocompetent animal is an adult immunocompetent animal.

38. (New) The process of claim 5, wherein the hormone is a cytokine.

39. (New) The process of claim 5, wherein the hormone is a colony stimulating factor.

40. (new) The process of claim 5, wherein the hormone is a nerve growth factor.

41. (New) The process of claim 5, wherein the hormone is insulin.

42. (New) The process of claim 5, wherein the hormone is glucagon.

43. (New) The process of claim 5, wherein the hormone is rennin.

44. (New) The process of claim 5, wherein the hormone is parathyroid hormone.

45. (New) The method of claim 30, wherein the hormone is a cytokine.

46. (New) The method of claim 30, wherein the hormone is a colony stimulating factor.

47. (New) The method of claim 30, wherein the hormone is a nerve growth factor.

48. (New) The method of claim 30, wherein the hormone is insulin.

49. (New) The method of claim 30, wherein the hormone is glucagon.

50. (New) The method of claim 30, wherein the hormone is rennin.

51. (New) The method of claim 30, wherein the hormone is parathyroid hormone.